

PLACING ON A SUBSTRATE SUPPORT IN AN ETCH CHAMBER A SEMICONDUCTOR SUBSTRATE HAVING AN EXPOSED OXIDE SURFACE THEREON

FLOWING A GAS CONTAINING NITROGEN INTO THE ETCH CHAMBER

APPLYING AN RF BIAS OF PREDETERMINED POWER LEVEL TO THE SUBSTRATE SUPPORT IN THE ETCH CHAMBER

FORMING A NITROGEN PLASMA IN THE CHAMBER WHILE CONTINUING TO FLOW THE GAS CONTAINING NITROGEN INTO THE ETCH CHAMBER AND WHILE CONTINUING TO APPLY THE RF BIAS TO THE SUBSTRATE SUPPORT

EXTINGUISHING THE PLASMA AFTER A PREDETERMINED PERIOD OF TIME

WHEREBY A REPRODUCIBLY FIXED THICKNESS OF OXIDE WILL BE REMOVED FROM THE OXIDE SURFACE, WITH THE AMOUNT OF REMOVED OXIDE DEPENDENT ON THE RF BIAS POWER APPLIED TO THE SUBSTRATE, AND THE ETCH TIME

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